

# fernalld **Report**

**A p r i l 1 9 9 8**

## **I n s i d e**

- Cleanup Progress Update
- Clinton Praises Citizens Advisory Board
- Union Contract Ratified



message from  
**Jack Craig**

## **Construction season is upon us**

This will be the most active year of cleanup this site has ever seen. In the 1950's when Fernald was being built, work was concentrated on the 136 acres inside the production area. Today, our work spans from one end of this 1050-acre site to the other and down to the aquifer. This is an exciting time to be part of the team. However, as is the case with major construction projects, truck traffic and mud associated with excavation will increase. Here,

we ask that our neighbors continue to be patient as cleanup progresses. We will practice good work space management to minimize the impacts of construction activities on our neighbors.

In the waste pit area, rail and infrastructure improvements will be concluding while prep work and remediation plans are submitted to the U.S. Environmental Protection Agency. Team members from the On-Site Disposal Facility (OSDF) and the Soil Characterization and Excavation Project are preparing to clear out the Inactive Flyash Pile. The stockpile of materials resulting from the demolitions of Plants 7, 4 and 1 will begin moving to the OSDF. Just west of Paddy's Run, neighbors will see soil sampling crews in the field as part of the process to certify that the area is clean. The Boiler Plant will continue to come down, with the Thorium/Plant 9 complex hitting stride.

Within the Silos Project, the Small Scale Waste Retrieval operation is moving from the mockup area at Silo 4 to Silo 3 to prepare for actual operations. As field work concludes in the South Field with the installation of injection wells, testing is expected to begin soon to determine if they will have the desired effect on the aquifer.

With construction activities increasing, our emphasis on safety will be heightened. We will continue to put safety first by implementing integrated safety management, involving all necessary team members in work planning, and tailoring specific train-

ing and protective equipment requirements to the hazards of each project. No project is so important that we will jeopardize the safety and health of any of our team members. Our safety record continues to be a great reflection of the work we do here. DOE, Fluor Daniel Fernald and our subcontractors have fully embraced a safety culture that steps beyond the work place. So as the pace of field work increases, safety will be out front.

This will be a time of tremendous activity and a good chance for those who haven't been out to the site to visit and see the progress we have made. In fact, the May Cleanup Progress Briefing will feature a tour of Fernald. Buses will load promptly at 6:00 p.m. on Tuesday, May 12, and project managers will be on hand to talk about their projects and answer questions. I hope you can be there to see what we're doing first-hand.



  
Jack Craig  
Director, DOE-Fernald

*On the Cover: Jim Capannari from the Soil and Water Project uses a Global Positioning System to call back field coordinates as part of the Area 3 characterization (6847D-012).*

## *Fernald forges new path with labor agreement*

Members of the Fernald Atomic Trades and Labor Council (FAT&LC) have voted to accept a new five-year collective bargaining agreement with Fluor Daniel Fernald. "I've been through several of these types of negotiations in the past, and this was definitely the best," said Gene Branham, FAT&LC vice president. "Realizing we're all on the same team made things go a lot more smoothly."

"By working together, we were able to reach an agreement that considers our represented team members' needs while implementing work process improvements that support the accelerated cleanup plan," said John Bradburne, Fluor Daniel Fernald president. "Labor relations is one of the many areas in which we continue to make progress at Fernald."

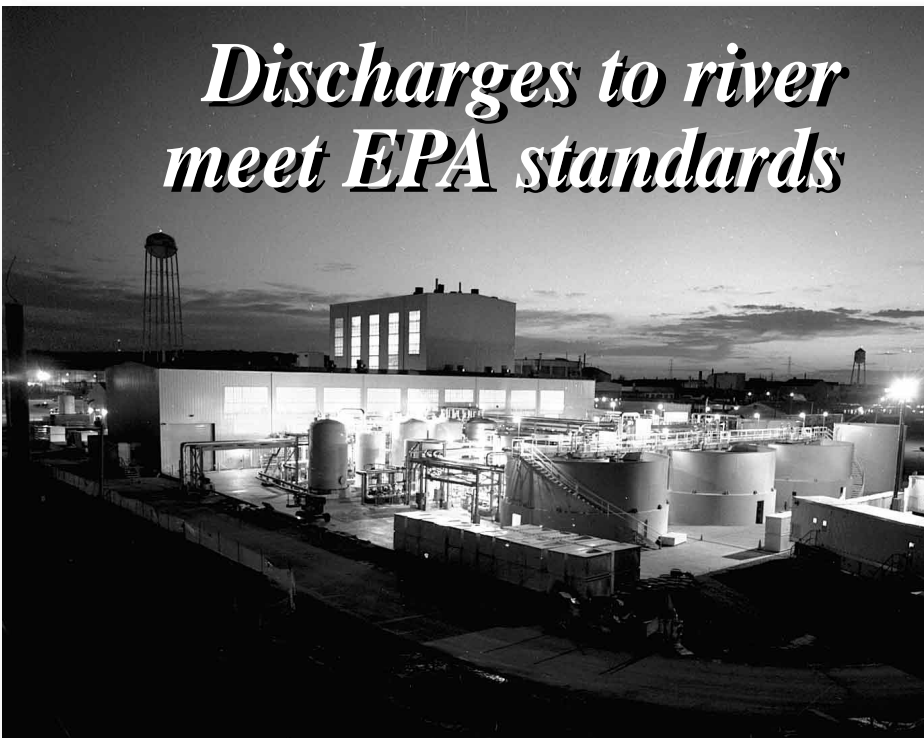
The joint union and management effort has resulted in a leading-edge example of an agreement that satisfies the dual goals of maintaining necessary skills and talent for project completion, while preparing those who have fulfilled their roles at Fernald for employment elsewhere.

This is the first five-year contract approved at any DOE site completely dedicated to remediation.



(Clockwise from top right) John Bradburne; Bob Schwab, FAT&LC president; Peggy Doherty, Industrial Relations; and Gene Branham were present for the official contract signing ceremony (6842D-017).

## *Discharges to river meet EPA standards*



Above: The expansion of AWWT will increase treatment capacity from 1100-gallons-per-minute (gpm) to 2900 gpm (5531A-1082).

of uranium discharged to the river is expected to slightly increase due to increased pumping to remediate the aquifer. However, 1998 numbers should still be less than the 600 pound and 20 ppb limits.

The Aquifer Restoration and Wastewater Project achieved two major milestones set forth in the *Operable Unit 5 Record of Decision (ROD)*. The ROD stipulated that no more than 600 pounds of uranium per year can be discharged to the Great Miami River and the monthly average uranium concentration being discharged cannot exceed 20 parts per billion (ppb).

Last year water discharged to the river contained 126 pounds of uranium, well under the allowable 600 pounds. The 20 ppb uranium discharge limit became effective on Jan. 1, 1998. By using eight of the ten allowable "significant precipitation" bypass days during January, March, June, and August, Fernald was able to reach the 20 ppb limit one year ahead of schedule.

The amount of uranium discharged to the river has been decreasing over the last several years due to the various site water treatment facilities built to remove uranium from wastewater and groundwater. In 1998, the pounds

# Cleanup **Progress** Update



*Above: Track leveling operations in the North Rail Yard continue (6349D-1314).*

*Right: OSDF team members closely monitor impacted material as it is placed in Cell 1 (6319D-1158).*

*Far right: Workers prepare to install chain link fence around the Haul Road (6319D-1154).*



## **Waste Pits Remedial Action Project (WPRAP)**

- Completed construction of Locomotive Maintenance Facility
- Continued Shandon Yard upgrade construction and on-site rail improvements
- Submitted International Technology (IT) Corporation's Remedial Design package to regulatory agencies
- Continued review of IT Corporation's pre-mobilization contract deliverables (includes the *Pre-Operational Health & Safety Plan*, *Site Preparation Package*, and *Excavation Plan*)

## **On-Site Disposal Facility (OSDF)**

- Completed construction of OSDF Material Transfer Area and initiated construction of Decontamination Facility
- Began placement of 2-foot layer of select impacted material in Cell 1
- Prepared Consent Package for OSDF Phase II/Southern Waste Units excavation for and submitted to DOE for review and approval
- Resumed efforts to complete Leachate Conveyance System construction punch list items, which were delayed by adverse weather conditions





## Facilities Closure & Demolition Project (FC&DP)

### Safe Shutdown

- Plant 8 —
  - Completed isolation of utilities into Plant 8
- Plant 2/3 —
  - Performed biohazard cleanup and removal
  - Completed holdup material removal from selected areas
- Plant 6 —
  - Continued utility disconnects
- Non-Nuclear Facilities —
  - Performed underground excavations on fire protection and treated domestic waterline for Tank Farm

### Decontamination & Dismantlement (D&D)

- Boiler Plant/Water Plant —
  - Completed removal of all accessible transite
  - Completed demolition of Coal Shaker structure and associated equipment
  - Continued demolition of railroad tracks
- Thorium/Plant 9 Complex —
  - Continued asbestos abatement, equipment removal, interior dismantlement, and interior transite removal
  - Continued demolition activities in Building 32
- Maintenance/Tank Farm Complex —
  - Submitted Implementation Plan for combined complexes to regulatory agencies

### Silos Project

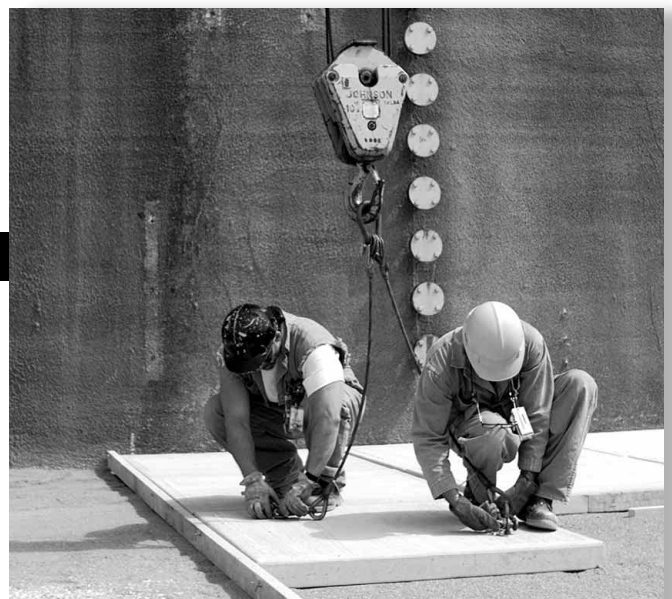
- Conducted pre-proposal meeting with potential contractors on *Silos 1 and 2 Proof of Principle Testing Request for Proposal (RFP)*
- Made Scope of Work, Evaluation Criteria and summary of Technical Requirements matrix for Accelerated Waste Retrieval Project RFP available for stakeholder review
- Completed revision of *Silo 3 Draft RFP* to incorporate off-site treatment
- Completed mock-up testing of Silo 3 Small Scale Waste Retrieval at Silo 4 and initiated relocation of equipment to Silo 3



*Left: The dismantling of old rail lines associated with the Boiler Plant is nearly complete (6407D-0521).*



*Below left: A Hazardous Waste Worker removes holdup material from a furnace in Plant 8 (6681D-79).*

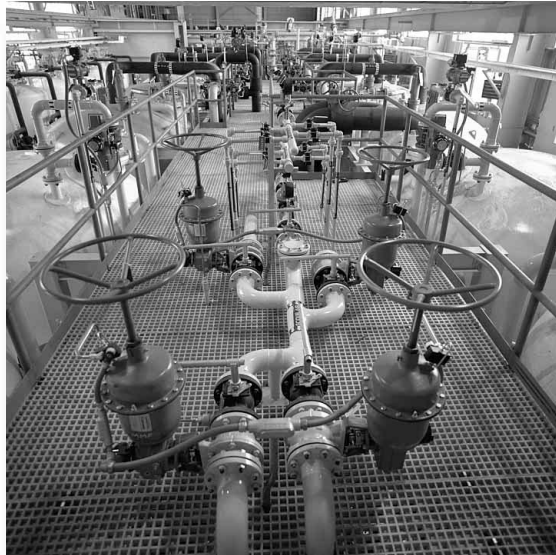


*Below: Workers prepare the area near Silo 3 in order to relocate Small Scale Waste Retrieval equipment (6759D-0158).*

# Cleanup **Progress** Update

*Right: A look at the expanded AWWT (5531A-1069A).*

*Below: Soil samples taken from the West Soil Pile will be analyzed to determine the final disposition of this material (6846D-017).*



## **Aquifer Restoration & Wastewater Project**

- Completed all major construction activities on Advanced Wastewater Treatment (AWWT) Facility Expansion and initiated Integrated Construction Acceptance Testing (CAT) and System Operability Testing (SOT)
- Completed construction and performed CAT and SOT on new Sewage Treatment Plant
- Completed off-property pipeline installation for South Plume Optimization Project
- Submitted the following documents to regulatory agencies:
  - *March 1998 Integrated Environmental Monitoring Plan Quarterly Report*
  - *Draft Final South Field Extraction System/South Plume Optimization Start-Up Monitoring Plan*
  - *Restoration Area Verification Sampling Report*

## **Soil Characterization & Excavation Project**

- Completed minor checklist items associated with demobilization of Paddy's Run Embankment Stabilization Project Phase II
- Continued field implementation activities for Area 2 Phase I (Southern Waste Units) Site Preparation package, including work on retention basins, equipment wash facility, trailers and lift stations
- Continued procurement process for OSDF Phase II/Southern Waste Units excavation contract (to be performed in conjunction with the OSDF)
- Initiated additional Waste Acceptance Criteria attainment sampling of West Soil Stockpile in Area 1 Phase I (OSDF Cell 1 Footprint and Nearby Areas)



## Waste Management/ Nuclear Materials Disposition Project

- Organic Treatment Project — Received responses to *Commerce Business Daily* announcement for potential subcontractors to treat tri-mixed wastes, which include wastes contaminated with polychlorinated biphenyls (PCBs) and both low-level radiological components and organic contaminants regulated by the Resource Conservation and Recovery Act
- Neutralization/Precipitation/Deactivation/Stabilization Project — A total of 760 drums were treated as of March 27, 1998
- Nuclear Materials Disposition Operations — Shipped eight samples of various uranium-containing compounds off site for analysis in support of the sale of low enriched uranium materials
- T-Hopper Repackaging System— Made "lessons learned" modifications to optimize system operability; restarted project March 23, 1998 and repackaged material in three T-Hoppers by March 27, 1998



*Above: Team members prepare a shipment of Loss of Fluid Test Material (LOFT) fuel rods to Framatome Cogema Fuels in Lynchburg, Virginia for reprocessing (6846D-011).*



*Left: An operator in the Plant 6 T-Hopper Repackaging operation vacuums a drum rim prior to lidding (6714D-114).*

## *Accelerated waste retrieval progresses*

DOE and Fluor Daniel Fernald are making progress with the Accelerated Waste Retrieval Project, which involves physically removing waste from Silos 1 and 2 and placing it in transfer tanks that will provide temporary storage of the material for final remediation.

Contractors are being asked to prepare proposals for the retrieval and storage of the silo material and send proposals back to DOE early this summer. Once a vendor is selected, design and construction will begin.

The contractor will be responsible for the design, construction, testing, full-scale mockup tests, and operation of Waste Retrieval Systems, the Radon Control System and Transfer Tank Area. The Waste Retrieval System will remove the contents of the silos including bentonite and water. The contractor will also perform gross decontamination of the Silos.

The Transfer Tank Area will provide a temporary storage and secondary containment for the materials until treatment and final stabilization. Radon control, environmental and radiation monitoring will be conducted for the duration of the project.

As part of a full-scale mock-up test, a waste retrieval system identical to the system designed for Silos 1 and 2 will be installed at Silo 4. This mock-up test will validate the design of the waste retrieval system to be used on Silos 1 and 2 prior to actually entering the silos.

DOE will continue to provide updates to the public as the Accelerated Waste Retrieval Project progresses.



## *Transportable, analytical labs save time and money*

The DOE Office of Science and Technology has provided Fernald with road transportable analytical laboratories. The labs are designed to reduce the turn-around time of sample results that are critical to field remediation and waste treatment. The result is a significant cost savings for DOE and Fluor Daniel Fernald. There are a total of three trailers: two are designed for sample analysis (organic/inorganic and radiological) and the other for administrative support. The labs are totally self-contained and can be transferred to other DOE sites within 24 hours.

Through a special partnership with Fernald's Technical University Programs, the organic/inorganic lab is supported by the University of Findlay. Findlay Professor Ken Brown serves as consultant and project manager for the lab and oversees students who serve as chemists and lab technicians. Lab personnel and the University of Findlay have supported the Organic Treatment Project, the testing of absorbents for the White Metal Box corrective actions, the AWWT and groundwater sampling.

*Pictured from left, Ken Brown and Ervin O'Bryan, discuss a mass spectrum of a volatile organic analysis (6857D-004).*



*Above: Accelerating this phase of the Silos Project will reduce the risk associated with storage in the current silos, and complete the first step toward final remediation of Silos 1 and 2 (6759D-146).*



## Fernald CRO receives grant

The Ohio Department of Development's Office of Defense Adjustment recently awarded a \$50,000 grant to the Fernald Community Reuse Organization (CRO) for an entrepreneurial assistance program.

"The purpose of this program is to stimulate growth of entrepreneurial firms that may hire Fernald workers," said CRO Chair Dr. David McWilliams. "Fernald employees who have started or are interested in starting a business are eligible to apply. We're very pleased about this grant and the opportunities that may result for Fernald employees."

"I tip my hat to the CRO for its leadership and dedication in this unique transition effort," commented John Merwin, Fluor Daniel Fernald workforce restructuring liaison. "Receiving the grant is another example of how all levels of government are working in unison with the community to have no involuntary separations at Fernald by providing opportunities to help employees leave employed versus unemployed."

To screen and select participating firms, the CRO will work directly with regional Small Business Development Centers. "These firms will then be matched with private sector management assistance consultants to accelerate the execution of their business plans," explained Curt Paddock, CRO economic development consultant. "The CRO will pay for these services through mini-grants," said Paddock.

The application, screening and selection process and schedule must still be developed. "We hope to have the details worked out and publicized by May," Paddock said.



*Above: The CRO has also applied for a \$265,000 DOE grant to develop a plan to help Fernald workers and surrounding communities adjust to job losses resulting from Fernald's downsizing and eventual closure (6843D-O27).*

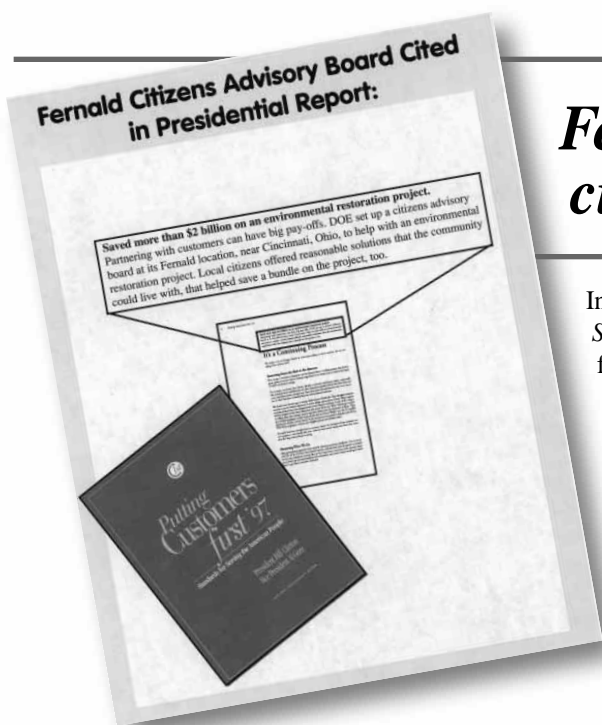
## Fernald Citizens Advisory Board Cited in Presidential Report:

Saved more than \$2 billion on an environmental restoration project. Partnering with customers can have big pay-offs. DOE set up a citizens advisory board at its Fernald location, near Cincinnati, Ohio, to help with an environmental restoration project. Local citizens offered reasonable solutions that the community could live with, that helped save a bundle on the project, too.

## Fernald Citizens Advisory Board cited in presidential report

In a recent presidential report titled, *Putting Customers First '97: Standards for Serving the American People*, the Fernald Citizens Advisory Board was recognized for its decision-making guidance.

According to the report, "More than \$2 billion dollars was saved on an environmental restoration project. Partnering with customers can have big pay-offs. DOE set up a citizens advisory board at its Fernald location, near Cincinnati, Ohio to help with an environmental restoration project. Local citizens offered reasonable solutions that the community could live with that helped save a bundle on the project, too."





## ***Safe work record continues***

Fluor Daniel Fernald employees continue to add to their safe work record. As of April 3, they had accumulated 1.5 million hours without a lost-time accident. "We are very proud of this accomplishment," said John Bradburne, Fluor Daniel Fernald president. "We realize this is only the beginning of achieving our ultimate goal of 3.9 million safe work hours in 1998." In addition, the site's sub-contracted workforce has extended their safe work record to more than five years without a lost-time accident.

*Above: Removing equipment from the former Special Products Plant is an example of difficult work being performed safely by an employee of NSC Inc., the company hired to dismantle the Plant 9 Complex (6494D-212).*

## ***Announcing... The First Annual... DOE Field Office Business Forum***

*Transitioning to an Aggressive Program  
for Cleanup, Closure & Revitalization  
...at DOE-Fernald, Mound Lab*

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Leah Dever, Manager, DOE-Ohio Field Office  
Jack Craig, Director, DOE-Fernald Project Office  
Nat Brown, Director, DOE-Miamisburg EM Project office  
John Bradburne, President, Fluor Daniel Fernald  
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**With sessions on:**

- Fernald's Cleanup Plan to Meet a 2005 Closure Date
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- Long-Term Institutional Control and Monitoring Needs
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- DOE-Ohio Field Office Business Procedures
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# Recent Tours

Curt Paddock from Paddock Management Services is a consultant in community and economic development and is assisting the Community Reuse Organization (CRO).

"The tour was excellent," commented Paddock. "Fernald has developed a workforce that is at the forefront of environmental remediation. This will be a tremendous resource for the CRO's economic development efforts."

*Curt Paddock (seated left) had a chance to review the many active projects across the site (6810D-012).*



Dale Schutte, chair of the Nevada Citizens Advisory Board (CAB), spent two days at Fernald learning about the site and its waste management program.

*left to right; Leah Dever, Ohio Field Office manager; Mr. Schutte; Jack Craig, DOE-Fernald director; and Dave Rast, DOE Waste Management engineer (6810D-014).*

On March 19, The American Society of Civil Engineers held their monthly meeting at Fernald. Their evening tour included a stop at the AWWT.

Tim Sparks, a process engineer for Fluor Daniel Fernald, hosted the tour covering the multimedia filter project and the nearly completed expansion of the facility.

*Besides AWWT, ASCE visitors were able to see many of the remediation projects at Fernald (6810D-016).*



## New Documents Added to the Public Environmental Information Center

The following information was recently added to the Public Reading Room, Administrative Record files and Post Record of Decision files at DOE's Public Environmental Information Center (PEIC):

- U.S. EPA Approval of the Waste Acceptance Criteria (WAC) Attainment Plan for the On-Site Disposal Facility
- Waste Pits Remedial Action Project Design Package
- U.S. EPA approval of the Construction Quality Assurance Report for the On-Site Disposal Facility Report
- Draft Maintenance/Tank Farm Complex Implementation Plan for Above-grade Decontamination and Dismantlement—This plan represents the solid design documentation required for the combined Tank Farm and Maintenance Complex project and fulfills regulatory milestones for submittal of separate Implementation Plans as defined in the Operable Unit 3 Integrated Remedial Design/Remedial Action Work Plan (May 1997)
- Implementation Plan for Above-Grade Decontamination and Dismantlement of the Sewage Treatment Plant Complex -- This Implementation Plan represents the Remedial Design documentation for the above-grade decontamination and dismantlement of the Sewage Treatment Plant Complex.
- Documentation from the following public meetings/workshops:
  - Silos Project Public Involvement Workshop held March 4
  - Cleanup Progress Briefing held March 10
- Restoration Area Verification Sampling Program Summary Report - This summary report presents and interprets groundwater data collected to evaluate if final remediation levels could exceed outside the uranium-based groundwater remediation footprint. It also provides a recommendation about whether the modification of uranium based aquifer remedy is warranted at this time based on the sampling results
- 1997 Resource Conservation and Recovery Act Annual Hazardous Waste Report

### Correction

The public comment period for *Accelerating Cleanup: Paths to Closure*, ends May 1, 1998 not May 28, 1998 as previously reported.



### Fernald Report

Gary Stegner, Public Information Director  
U.S. Department of Energy  
Fernald Environmental Management Project  
P.O. Box 538705, Cincinnati, OH 45253-8705  
Telephone: 513-648-3153,  
E-Mail: [Gary\\_Stegner@fernald.gov](mailto:Gary_Stegner@fernald.gov)  
Fernald Web Site: [www.fernald.gov](http://www.fernald.gov)